BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

IN RE APPLICATION NO. 2002-01

BP WEST COAST PRODUCTS, LLC.

BP CHERRY POINT COGENERATION PROJECT

EXHIBIT 28R.0 (ADE-RT)

APPLICANT'S PREFILED REBUTTAL TESTIMONY

A. DAVID EVERY

Q. Please reintroduce yourself to the Council.

A. My name is David Every. I have degrees in biology including a Ph.D. in botany, and have consulted on wetland, vegetation and wildlife issues for more than 25 years. I had overall responsibility for developing the wetland mitigation plan for the Cogeneration Project.

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Q. What testimony will you be addressing in your rebuttal?

A. I'll be addressing portions of Dr. Kate Stenberg's testimony, which was filed on behalf of Whatcom County. In particular, I will address portions of her testimony that concern the wetland mitigation plan, the stormwater plan and the project's potential impacts on blue herons and other wildlife. I understand that other witnesses will also be addressing some of those issues.

Wetland Mitigation Plan

Q. In general, what is your reaction to Dr. Stenberg's comments regarding the wetland mitigation plan?

A. Dr. Stenberg acknowledges that she needs more information to determine whether her concerns have already been addressed. Overall, I believe that all of the concerns she raises either are already addressed in the mitigation plan materials or can be well addressed within the envelope of the planned mitigation.

Q. Dr. Stenberg has expressed concern about the mitigation resulting in the creation of new ponds that will attract bullfrogs to the mitigation areas. What is your response to her concern?

A. I do not think there is a reason to be concerned about this mitigation plan. There is already a large bullfrog population in the area, but I would not expect it to increase as a result of the mitigation project. The mitigation plan will not be creating any additional permanent open water habitat, and bullfrogs require the edges of permanent shallow (<1m) and deep water (>1m) habitats to fulfill their life cycle.

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Therefore, no additional breeding habitat will be available to the already existing bullfrog population in the area.

Incidentally, since the heron colony appears to be Dr. Stenberg's primary concern, I was surprised that she expressed concern about the presence of bullfrogs in this context. The presence of bullfrogs may actually be a benefit to the herons in the area, as they are known to include bullfrog tadpoles and juveniles in their diet, and the bullfrogs are relatively large protein items. Of course, because of the effects bullfrogs have on native amphibians, I would certainly not advocate doing anything that would increase the bullfrog population.

Q. Dr. Stenberg expressed concern that the mitigation plan would create permanent open water ponds, which would not be good habitat for the herons. How do you respond to this concern?

A. Again, her concern appears to be based on having insufficient information about the mitigation plan. There is no plan to create permanent open water ponds. However, I do question her claim that open water ponds make bad habitat for herons. The two existing ponds located close to Jackson Road are heavily used by the herons.

Q. Dr. Stenberg also expressed concern about water levels fluctuating and this adversely affecting native amphibians. What is your response to this concern?

A. Dr. Stenberg's general concern does not apply to the mitigation plan at issue here. No ponds exist in the proposed mitigation area, and none are proposed. There are not expected to be fluctuations in water levels as it relates to amphibian habitat.

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With that said, I would also caution that the current understanding is that the impacts of water level fluctuations to amphibians is variable, depending on species, the components of habitat, and the timing. Amphibians that are known to use the area between Grandview Road and Terrell Creek that includes the mitigation site include bullfrogs, Pacific treefrogs, and red-legged frogs. These species require a certain minimum depth of water, particular to species, to breed and deposit their eggs. Bullfrogs must have permanent water because the tadpoles must overwinter and metamorphose the following summer. The mitigation site hydrology plan does not call for ponding of water to depths sufficient for amphibian breeding. Additional habitat area within the mitigation sites will be suitable for the adult phase of Pacific treefrogs and red-legged frogs to inhabit with the mitigation in place. Because no open water is proposed, no adverse effects on amphibians are anticipated.

Q. Dr. Stenberg contends that wildlife habitat will not be improved as a result of the project. Do you agree with her conclusion?

A. This comment appears to be based on a misunderstanding of wording in the DEIS. The point being made is that compensatory mitigation is expected to improve habitat enough to offset habitat losses at the project site and result in a net overall improvement in habitat function. The Washington State Department of Ecology's "Methods for Assessing Wetland Functions" was used to demonstrate the difference between the functions lost on the construction site and those gained in the mitigation areas. This is a commonly used methodology, and the analysis in the case has been reviewed and accepted by the wetlands biologists at the Army Corps of Engineers, Washington Department of Ecology, Whatcom County, and EFSEC's independent

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consultant Shapiro Associates. Habitat functions were the most improved of all the functions evaluated under the Ecology methodology.

Q. Dr. Stenberg also expressed concern that tilling and disking of reed canary grass in the mitigation areas "could seriously impact a variety of ground nesting birds." What is your response to her concern?

A. Replacement of reed canarygrass with more desirable native species is one of the key elements of the mitigation plan. The dense reed canarygrass stands that will be tilled as part of the eradication efforts are essentially monocultures of tall grass, and they are considered by all the regulatory agencies to be a major factor of degradation of the habitat.

Some ground-nesting birds may use the reed canarygrass stands for nesting. However, nesting in these areas will not be possible during the activities associated with fighting reed canarygrass. The activity will begin early in the spring before nesting activities are likely to have begun. Therefore, the birds will likely seek alternative locations for nesting. The reed canarygrass fighting activities are expected to occur frequently enough during the first year to further discourage renesting attempts. With other nest sites available in the area, there should be little effect on the reproduction of the excluded birds. The species as a whole will not be affected.

Once the activities associated with removing the reed canarygrass are complete, the next step is to plant native vegetation to replace it. With native vegetation growing,

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there will again be nesting area for ground-nesting birds. Therefore, the exclusion effects should last only one nesting season. After the new planting, some of the habitat is likely to be better for ground-nesting birds.

Q. Dr. Stenberg also suggests that the mitigation plan include a proposal for the development of alternative heron colonies. Do you agree with that recommendation?

A. The reasons why a heron rookery locates in a particular place are complex and poorly understood. From an energetics point of view, it would appear that a location close to the bays that provide the major foraging area would be selected over one farther away. Unless something displaces the rookery from its present location, it is unlikely that another stand of trees would be selected. The mitigation plan already provides for the planting of many trees in CMA 1 and CMA 2, and over time, those stands may be suitable if the herons decided to move the rookery.

Q. Dr. Stenberg criticizes the mitigation plan's proposal regarding woody debris, snags, twigs and brush shelters. How do you respond to her comments?

A. While we recognize that the proposed woody materials are not ideal from the perspective of longevity, they nevertheless will provide important habitat structure for a period of time in an area currently nearly devoid of such, and there is plenty of that material available on BP-owned land. The artificial snags are expected to provide perch sites primarily for raptors that hunt small mammals. To the extent that they are available (e.g., the non-native cedars to be thinned from a windbreak) materials will be used that would be expected to last longer. It is understood that

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they will not be permanent. As the planted trees grow to maturity, they will replace the material placed there at the beginning. The species mix planted will include some species that will provide large woody debris earlier than others, and some will last longer once it dies in place. It will also be possible to create snags from some of the planted trees in the future.

Q. Dr. Stenberg contends that the wetland mitigation plan overstates the anticipated benefits of providing thermal cover and increasing plant diversity. How do you respond to her contention?

A. I disagree with Dr. Stenberg's contention. First of all, thermal cover is not a primary focus of the mitigation plan or the "benefits" claimed from the plan. Thermal cover is simply not a major issue for wildlife in the area. As with other functions of wetlands, the potential for benefit may be higher than can be realized in a given place because of other factors, including surrounding land use and physical features.

Second, with regard to habitat diversity, I believe the mitigation plan will significantly increase habitat diversity in the mitigation areas. Dr. Stenberg appears to focus her comment exclusively on plant diversity, but plant diversity is only one component of the increase in habitat diversity that will be an important benefit of the mitigation to wildlife. Along with plant diversity, structural diversity and interspersion of habitat types are considered important in the planned enhancement of habitat values for wildlife. These same factors are considered in the rating of wetlands into categories.

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Stormwater Plan

Q. Dr. Stenberg expresses concern about stormwater being conveyed to the wetland mitigation areas. How do you respond to her concerns?

A. Her first concern appears to be a perception that the wetlands in the mitigation area are expected to provide stormwater treatment, which would be inappropriate. In reality, the stormwater treatment will be provided by the detention basin/wet pond, which will comply with the State manual requirements as she suggests. The water conveyed by pipe to mitigation area CMA 2 is expected to meet water quality standards.

The second concern appears to be water level fluctuations. The conveyance to the mitigation area will be sized to convey the quantity of water expected from a six-month storm. Any larger flow will go down the ditch where it currently flows directly to Terrell Creek. That way, the fluctuation in water input to the mitigation area will be controlled, and the water going there will help shave peaks off the inflow to Terrell Creek. Of course, the flows are modeled and evaluated during the planning and design.

Q. Dr. Stenberg testified that the stormwater ponds have "potential to become both bull frog habitat and amphibian mortality sinks." What is your response to this statement?

A. It is true that bullfrogs are known to find and reproduce in stormwater ponds. However, that can be prevented by making sure that the ponds go dry during the dry

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summer or fall months. Salamanders and other amphibians in the area have shorter life cycles and can complete metamorphosis to the land stage in a few months. If the ponds are designed to allow both entry and exit by the amphibians, then they need not become mortality sinks. However, only species that find the other conditions suitable for reproduction are likely to be present. Some species require certain structural features, such as reeds, to deposit their eggs. If those features are not present, the species will not breed there.

Q. Dr. Stenberg testified that the stormwater ponds could be managed to avoid problems. Will the ponds be managed as she has suggested?

A. The ponds will be designed and managed to avoid the problems noted.

Q. Dr. Stenberg recommends that curbs or low, tight-mesh fencing be installed around stormwater ponds to prevent access by amphibians. Do you agree with this recommendation?

A. Those designs would probably be effective for salamanders, but perhaps not for frogs. The issue will be examined during the final mitigation plan design and the most appropriate measures used to avoid the problems.

Blue Heron and Other Wildlife

Q. In general, what is your reaction to Dr. Stenberg's testimony regarding the project's potential impact to blue herons and other wildlife?

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A. Dr. Stenberg's observation seems to be general and theoretical. She says that something could affect the herons but she seems to have relatively little information about these particular herons – where they nest, stage and forage – and no basis to conclude that the project will, in fact, cause the theorized impact. It appears from the observations of heron use that the project is to be constructed in some of the areas least used by herons. Their preferred habitat combinations of wetland and/or streams in conjunction with fallow fields are generally missing from the proposed cogeneration project site or laydown areas. The project site and the laydown areas are a considerable distance from the rookery. The rookery is much closer to the Point Whitehorn generating facility, to BP's refinery and to passing cars on the adjacent road, all of which likely generate more noise than the more distant Cogeneration Project.

Other wildlife use of the project site and laydown areas is lower than some comparable areas in the vicinity. The laydown areas are inside the perimeter fence, and both the cogeneration site and the laydown areas are close to the refinery noise and activity. The loss of the sites from fallow field habitat to industrial use will reduce the area available to wildlife, but there is nothing unique about the habitat being lost. Most of the species that use the habitat being lost are those most tolerant of man's activities and modification of habitats.

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Q. Based on your experience, do you believe that the blue heron colony will be adversely affected by the Cogeneration Project?

A. Based on observations and understanding of heron activity in the vicinity, I do not believe any adverse effect will be perceptible.

Q. Dr. Stenberg contends that the implementation of the wetland mitigation plan will result in a 2-5 year reduction in available heron habitat. How do you respond to that contention?

A. The mitigation areas are far enough away from the heron rookery that they are outside the breeding and staging area and the area of primary importance to young herons. At most, the mitigation areas are part of a broad secondary use area. To the extent that the activities associated with developing the mitigation sites causes heron use to be reduced, then that will be an unavoidable result of the mitigation. However, the effect should be minor, and at most limited to an effect on individual herons. It would be inconsequential to the population of the colony as a whole. Indeed, Dr. Stenberg acknowledges the likely long-term benefit to the herons.

Q. Dr. Stenberg also seems to question whether the project will impact various "significant" species and "species of local importance." Do you expect these species to be adversely affected by the Cogeneration Project?

A. None of the species now have especially good habitat in either the proposed construction area or the mitigation areas. After the mitigation areas are developed as planned, the habitat value for several of the species will be higher in the CMAs.

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Q. Dr. Stenberg also expresses concern about the cumulative effect on wildlife associated with various mitigation activities in the area. Do you believe these concerns are warranted?

A. BP has already initiated the development of an overarching management plan for their properties north of Grandview Road. The wetland mitigation for the cogeneration project and any future projects will fit under and be guided by the guidelines developed for the watershed, the landscape, and the components BP has influence over. The overarching plan will be developed in conjunction with Western Washington University, and all facets of the natural environment, especially including the heron rookery, will be considered. All of the County, State, and Federal agencies with jurisdiction over wetlands, wildlife, and habitats will have opportunities to provide their expertise in the development and implementation of the management plan and the various projects that will be guided by it.

END OF TESTIMONY

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